

Date: Thu, 4 Nov 93 04:30:21 PST  
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>  
Errors-To: Ham-Ant-Errors@UCSD.Edu  
Reply-To: Ham-Ant@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Ant Digest V93 #100  
To: Ham-Ant

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Today's Topics:

Archery Advice for Antenna Raising  
Chimney mounting a triband beam?

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>  
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: Tue, 2 Nov 1993 18:28:05 GMT  
From: dog.ee.lbl.gov!overload.lbl.gov!agate!spool.mu.edu!howland.reston.ans.net!  
gatech!news-feed-1.peachnet.edu!news-feed-2.peachnet.edu!umn.edu!csus.edu!  
netcom.com!mbutts@network.ucsd.edu  
Subject: Archery Advice for Antenna Raising  
To: ham-ant@ucsd.edu

brucec@tekgen.bv.tek.com (Bruce Cheney) writes:

>I am about to put some rope through the trees using an arrow  
>  
>QTH: Sherwood, OR

How appropriate!

73 de KC7IT

Mike Butts, Portland, Oregon mbutts@netcom.com

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Date: Thu, 4 Nov 1993 00:11:33 GMT  
From: europa.eng.gtefsd.com!emory!kd4nc!ke4zv!gary@uunet.uu.net  
Subject: Chimney mounting a triband beam?  
To: ham-ant@ucsd.edu

In article <00974F21433E9900.24604067@drager.com> landisj@drager.com (Joe Landis - Systems/Network Mgr. - x2621) writes:

>Hi,  
>I can get a good deal on the following package, used:  
>Mosley TA33 triband beam  
>Heavy duty rotor and controller  
>Create Design 6 ft quad roof tower  
>Thrust bearing  
>  
>I'm not too keen about mounting the quad tower on my roof. I'll probably sell  
>that. Has anyone mounted a tribander to a chimney, using a good mast and a heavy  
>duty strap type mount that one sees used on TV antennas with rotors? What kind  
>of wind load does this puppy have?

>If I'm crazy, let me know!

You're crazy. :-)

Don't try to mount a tribander to a masonry chimney. The first good wind and you'll be paying to have your chimney repaired.

The windload,  $F_l$ , in newtons is

$$F_l = .5 * Q * C_w * A * V^2$$

$Q$  is air density  $1.202 \text{ kg/m}^3$

$C_w$  is drag coefficient and  $A$  is area. For a beam these are combined as the "wind load" rating. For your Mosley it's about  $0.74 \text{ m}^2$ . So the force on your antenna in a 120 km/hr wind would be 6400.8N, and if we assume the antenna is mounted 3 meters above the chimney, the overturning moment will be 19,202.4 N-m. That's about 85,500 foot-pounds torque on the chimney. It's not designed for that. It is held together primarily by gravity with the mortar contributing minimal strength against torques.

Use the roof tower, and secure it well to the rafters, not the decking.

Gary

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Gary Coffman KE4ZV                   |"If 10% is good enough | gatech!wa4mei!ke4zv!gary  
Destructive Testing Systems | for Jesus, it's good | uunet!rsiatl!ke4zv!gary

534 Shannon Way | enough for Uncle Sam." | emory!kd4nc!ke4zv!gary  
Lawrenceville, GA 30244 | -Ray Stevens |

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